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ABSTRACT

A study was conducted to explore the interaction effects of self-esteem level and perceived program utility on the retention and cognitive achievement of adult basic education (ABE) students. A total of 200 black adult students receiving public assistance and enrolling in an ABE program with a reading level below 8.0 comprised the sample. Two hypotheses were tested: (1) Students with high self-esteem viewing the program as having low utility would be early dropouts; and (2) Among students viewing the program as having high utility, cognitive gain would be predicted by the level of self-esteem. A self-esteem instrument was administered verbally. Results are given. It was concluded that the conceptualization of utility was inadequate and that any study relating esteem and utility must take into account the different utilities the program offers to the student, and that ABE programs must perform a socialization as well as an educative function. (Author/CK)

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THE EFFECTS OF SELF-ESTEEM AND PERCEIVED PROGRAM UTILITY ON PERSISTENCE AND COGNITIVE ACHIEVEMENT IN AN ADULT BASIC EDUCATION PROGRAM

AN ABSTRACT OF

A DISSERTATION SUBMITTED TO

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ABSTRACT

The purpose of this study is to explore the interaction effects of self-esteem level and perceived program utility on the retention and cognitive achievement of adult basic education (ABE) students. A self-esteem instrument to be administered verbally was constructed with content relevant items developed from and tested on a working class undereducated black adult population. It was hypothesized that students with high self-esteem who perceived the program as having low utility would be early dropouts and further, that among students who judged a program as having high utility and who were retained for at least six months, cognitive gain would be predicted by the level of self-esteem.

Two hundred black adult students receiving public assistance and enrolling in an ABE program with a reading level below 8.0 comprized the sample. Data were collected on self-esteem, perceived program utility, retention, attendance, reading scores, eleven personal and four program characteristics over a seven months period. Students were interviewed in school or at their home if they had dropped out. The first hypothesis could neither be strongly rejected or accepted. The predicted esteem-utility interaction on retention did not occur at the required level of significance. Sex and esteem in interaction predicted significant differences on retention with high esteem females being retained and high esteem males dropping out ($p = .05$). When the effects of six covariates were equated, the sex-esteem utility interaction predicted significant differences on retention partially supporting the hypothesis. However, high esteem-low utility females tended to persist while high esteem-high utility males tended to drop out.

The second hypothesis was inadequately tested since the dropout rate (67%) meant that there were not enough cases to meet the requirements of the statistical model. When all students having both pre and post scores ($N = 107$) were included, esteem was found to be positively but not significantly associated with cognitive growth (post-scores conditional to pre-scores.

The level of economic support was found to have significant positive effects on retention indicating that for some students the economic utility of the program was as salient as the academic vocational utility which was measured. Trends in the data indicated that a social utility (getting away from home responsibilities) was operating for some females. Age, years of schooling, and intelligence were found to have important effects on cognitive growth, causing the significant association of low utility with high cognitive growth not to be expressed when the effects of these variables were equated.

It was concluded that the conceptualization of utility was inadequate and that any study relating esteem and utility must take into account the different utilities the program

offers to the student (academic, economic, social) and differences which relate to sex of the student. The legitimacy of the various utilities for the two sexes were suggested as having their base in values imposed by the greater society. It was also concluded that ABE programs must perform a socialization as well as an educative function if they are to carry out their legislative intent, i.e., to serve the most undereducated adult and prepare these students for employment.

Purpose of the Study

The growth of adult basic education (ABE) in the last eight years has been phenomenal, starting in 1965 when there were very limited programs to the present time when every state has developed a system of publicly supported ABE. This rapid growth of ABE has by these very conditions been based on borrowing from the youth educational system or utilizing the intuition or experience of its personnel. Little empirical knowledge regarding the education of functionally illiterate adults has been available on which to design these programs.

Programs of ABE must contend with two major problems if they are to become efficient: the rapid turnover of students and insufficient cognitive gain. Researchers have tended to concentrate on either the student, described as being poor, undereducated, and with multiple responsibilities and problems; or the program, which has been said by some to be inflexible and inappropriate for the clientele it serves.[1]

Previous research findings on the effects of the self-esteem of the adult student on persistence and cognitive growth have been limited. The measurement of self-esteem has

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[1] Examples of major studies utilizing these two approaches are: Special Projects Section: Xerox Corporation, Federally Funded Adult Basic Education Programs: A Study of Adult Basic Education in Ten States (New York: Xerox Educational Division, 1967, Jack D. Mezirow (Project Director), Analysis and Interpretation of ABE Experience in the Inner City: Toward a Theory of Practice in the Public Schools (New York: Teachers College, Columbia University, Center for Adult Education, Annual Report, 1969, Section II).

been one aspect of the problem[1] while the positing of direct causal relationships has been another dimension of the problem in adult education.[2] The impetus for this study arose out of these factors.

The question that this study sought to answer was were the effects of student self-esteem, adequately measured for this population, predictive of persistence and cognitive gain in ABE? Since the effects of self-esteem were not expected to be direct and since the program was considered to be an important variable affecting persistence and cognitive gain, it was believed that it would be fruitful to explore the effects of student self-esteem and the student's perception of the usefulness of the program he was attending. It was felt that a student-centered study which brought together both personal attributes of the student and the student's practical assessment of program utility in helping him reach his personal goals would be a first step in exploring persistence and cognitive gain in ABE.

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[1] Milton V. Boyce, John K. Coster and Robert J. Dolan, "The Effect of Adult Basic Education in Selected Non-Cognitive Attributes," a paper read at the Adult Education Research Conference, Minneapolis, 1970, p. 12 (mimeo).

[2] Ray Renbarger, "An Experimental Investigation of the Relationship between Self-Esteem and Academic Achievement in a Population of Disadvantaged Adults." (Unpublished Ph.D. dissertation, Michigan State University, 1969).

Methodology

The design of the study was based on six objectives: (1) to construct a self-esteem instrument which would adequately measure the self-esteem of the functionally illiterate adult often living in poverty circumstances; (2) to select and to sample a population of ABE students which was representative of the clientele for which ABE programs are principally designed; (3) to limit that population to one ethnic or racial group for the purpose of specifying relevant content for the self-esteem measurement; (4) to conceptualize and measure the concepts of students' perceived program utility and the degree of specificity with which a student could describe his personal goals; (5) to collect data on selected personal and program characteristics which might have an effect on the relationship of self-esteem, perceived program utility with persistence and cognitive gain; and (6) to control for as many intervening variables as practical.

The self-esteem instrument was constructed with items based on the formulation of self-esteem by Coopersmith.[1] This formulation suggested that self-esteem had four components from which a person derived esteem, i.e., power, virtue, competence and significance. The findings of Rosenberg which

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[1]Stanley Coopersmith, The Antecedents of Self-Esteem (San Francisco: W. H. Freeman and Company, 1967), pp. 4-29.

supported the conceptualizing of self-esteem as an attitude[1] and indicated the importance of the selectivity mechanisms available for a person in building self-esteem[2] were utilized as a theoretical framework in which to operationalize Coopersmith's formulations. The instrument was developed by a testing and selection process whereby items, which had been successfully categorized into the four components they were designed to represent by 83 per cent of 12 judges, were pretested with the intended population. A final instrument composed of 16 items was devised by the author taking into account the clarity and relevance of the items as well as their social desirability ratings. Concurrent validity was ascertained by criterion groups with the Self Esteem Instrument (SEI) differentiating between high and low groups $\leq .001$ level of probability. A split-half reliability of .60 was obtained corrected for attenuation. Intercorrelations between components ranged from -.31 to +.20. The SEI was administered verbally.

The population of students selected was defined by two criteria: the student's entry reading level would be below 8.0 on a standardized reading test and the student would be receiving public assistance at the time of enrollment in the

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[1] Morris Rosenberg, Society and the Adolescent Self-Image (Princeton: Princeton University Press, 1965), pp. 3-15.

[2] Morris Rosenberg, "Psychological Selectivity in Self-Esteem Formulation," edited by Chad Gordon and Kenneth Gergen, The Self in Social Interaction (New York: John Wiley and Sons, Inc., 1968), pp. 339-345.

program. The population was limited to blacks in order to delimit the population and to satisfy the needs of designing the self-esteem instrument for one ethnic or racial group.

Perceived program utility was conceptualized as being based on academic-vocational utility, the avowed purpose of program designers, which was congruent with the reasons ABE students gave for entering the program. The instrument was built on four functional components inherent in the program structure: subject matter utility; teacher utility; supportive services utility; and administrative utility.

The Perceived Program Utility Instrument (PPUI) was constructed on a rationale based on the investigator's experience observing ABE programs and from student data collected in a field research project on program improvement.[1] The PPUI was field tested on the intended population and in its final form successfully differentiated between criterion groups at the .025 level of probability. Intercorrelations on the four components making up the PPUI ranged from -.03 to .37. Test-retest scores for five students randomly selected, with one week intervening between interviews, varied less than five points on the total score (mean: 54.9).

Specificity of personal goals of the student was conceptualized as being the elaborated objectives which arose from the reasons the student gave for enrolling in the program.

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[1] William S. Griffith, Phyllis M. Cunningham and Stephen A. Treffman, Cooperative Program Improvement: An Experiment in ABE In-Service Training (Chicago, Illinois: Department of Education, University of Chicago, 1971).

These objectives were divided into short-term and long-term goals. The ability of the student to elaborate on an articulated goal, place the goal in a time sequence, and evaluate his progress in reaching the goal was the basis of defining specificity. The instrument was called the Specificity of Goals Instrument (SOGI) and was shown to distinguish between criterion groups at the .001 level of probability.

The Peabody Picture Vocabulary Test (PPVT) was selected to measure general mental ability; the Stanford Achievement Test (SAT) was selected to measure reading level. Data were also collected on eight personal and three program characteristics, by examining student records and by interviewing the student.

The parameters specified for the population were intended to control intervening variables. To the delimitations of being black, reading below the 8.0 grade reading level, and receiving public assistance, three other limitations were added. The student was to be enrolled in an urban public school system, he was to be a full-time student and the student's enrollment date would be limited to the first two months of the fall semester. In order to provide an opportunity for center effects to be expressed maximally, all adult centers in the system serving a predominantly black clientele were included.

A sample of 200 students (67% of the students available) was selected from the designated population who had enrolled in one of four centers during September or October, 1971, in the Chicago Public Schools. Interviews of these students

using the PPVT and the composite instrument were done during the months of November to March. Attendance and achievement data were collected over a seven months period. Students who had dropped out were interviewed in their homes. A total of 165 students[1] (83%) from the 200 member sample were successfully interviewed although data for subsequent reading tests after entry were limited to 107 students. During data collection the influence of supplemental income was suspected as being an important influence on retention, and accordingly, an economic support measure was developed as a proxy for actual supplementary income.

Rationale of the Study

The rationale for the study was based on the assumption that self-esteem would be normally distributed among ABE students and that the level of self-esteem would predict differential persistence bahavior depending on how the student perceived the utility of the program in meeting his personal goals. It was hypothesized that among students who perceived the program as having low utility, those with high esteem were expected to drop out since their level of self-esteem would allow them to be more sure that their assessment of the program was valid. Students with low self-esteem in this same group were expected to have more ambiguity as to whether the problem

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[1] Twenty-one students were not available for interview from one center because the addresses of students who had dropped out were not available.

lay in their assessment of the program or in themselves. Students with low self-esteem were expected to be retained but disengage, exhibiting poor attendance, coming late and leaving early.

It was also hypothesized that among students who were retained for at least six months and who judged the program as useful in attaining their personal goals, self-esteem level would predict cognitive growth.

These relationships are depicted graphically below:

Perceived Program Utility

Self-esteem	Low	High
Low	Retention but disengagement Low cognitive gain	Retention Moderate cognitive gain
High	Dropout	Retention High cognitive gain

Treatment of the Data

In preparation for the analysis, raw data was prepared in the following ways. Four persistence variables were defined measuring both a qualitative and quantitative aspect of retention and attendance. These were called membership status, persistence patterns, days present and attendance ratio. Raw scores from the reading level data were equalized across tests utilizing an equated score chart developed by

means of an equipercentile methodology.[1] Raw scores measuring esteem, utility,[2] specificity of goals and general mental ability were standardized for the population. The independent variables, esteem and utility, were divided into three groups (high, moderate and low), and sex (male and female).

The dependent variables for hypothesis one were the four measures of persistence; the dependent variables for hypothesis two were growth scores which were defined as post-scores conditional to pre-scores. Mesa 98[3] was the program used to analyze the data. The criterion for testing the hypothesis was the .05 level of significance.

Testing the Hypotheses

Hypothesis One

Hypothesis one was: the interaction of self-esteem and perceived program utility is not significantly related to persistence among ABE students, controlling for the effects of age, specificity in stating of personal goals and general mental ability.

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[1] Mark Reckase, "A Comparison of Two Methods for Scaling Test Scores," (unpublished Master's thesis, Syracuse University, 1971).

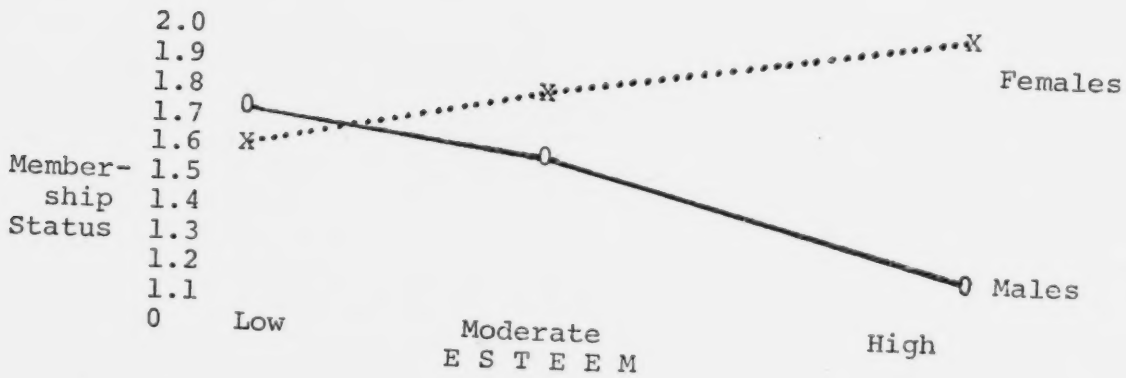
[2] The terms esteem for self-esteem and utility for perceived program utility will be used henceforth for purposes of simplicity.

[3] Jeremy D. Finn, Multivariance. Univariate and Multivariate Analyses of Variance, Covariance and Regression: A Fortran IV Program (Version 4; Buffalo, New York: State University of New York, June, 1968), referred to at the University of Chicago as MESA 98.

Hypothesis one could neither be strongly accepted or rejected. The level of student self-esteem and the level of program utility, as judged by the student, were positively but not significantly associated with retention and attendance. The hypothesized interaction between esteem and utility on persistence was not demonstrated. However, sex and esteem in interaction partially supported the hypothesis in that men who had higher scores on the SEI dropped out while the reverse was true for women. This interaction is shown in Figure 1.

FIGURE 1

CONTRASTS WITHIN THE SEX-ESTEEM INTERACTION ON MEMBERSHIP STATUS (P = .05)

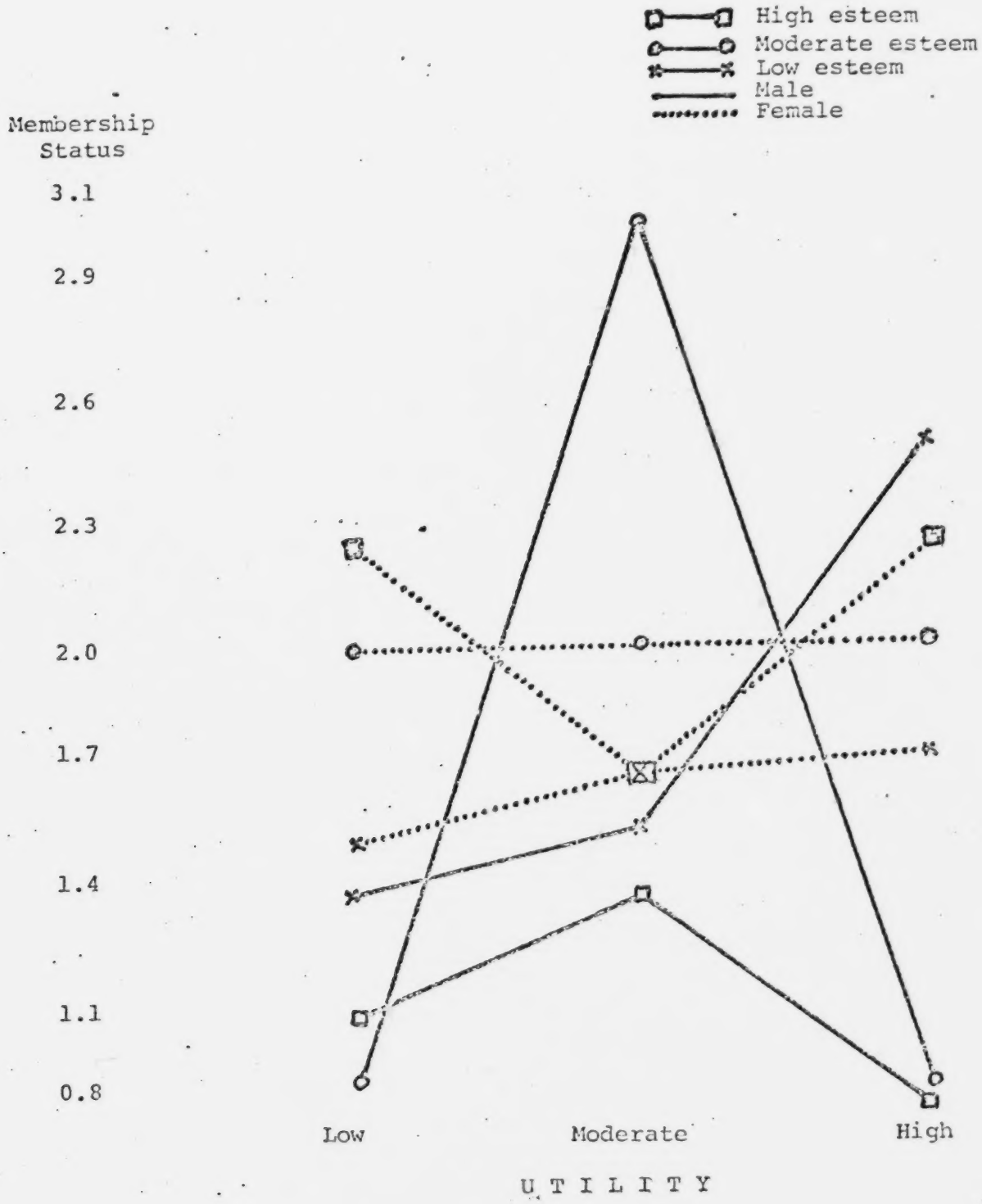


0 - Males (N = 37)
X - Females (N = 137)

These significant associations were maintained when the effects of age, general mental ability, specificity of goals, years of schooling, level of economic support, and time spent in other programs were equated. In addition, the association of membership status within the sex-esteem-utility interaction became significant. These data are shown in Figure 2.

FIGURE 2

CONTRASTS WITHIN THE SEX-ESTEEM-UTILITY INTERACTION ON MEMBERSHIP STATUS WITH THE EFFECTS OF SIX COVARIATES REMOVED (P = .05)



Men students with moderate self-esteem who saw the program moderately useful in reaching their academic vocational goals were retained longest, were in highest regular attendance and had a higher rating on the reasons why they persisted than all women or men in any other category. Men who has low self-esteem and judged the program as being highly useful closely followed the above group in both retention and attendance. However, men with a high level of esteem tended to drop out whether they felt the program had low utility or high utility.

On the other hand women with high self-esteem who considered the program to have little utility in helping them reach their goals were retained at a high moderate rate, were present 55 per cent of the time (median 31 per cent), and attended regularly 44 per cent of the time (median 17 per cent). This behavior was not explained by any of the variables measured in this study.

Hypothesis Two

Hypothesis two stated that the level of self-esteem is not significantly related to the amount of cognitive gain in reading among ABE students retained in the program who perceived the program as having high utility in meeting their personal goals, controlling for the effects of general mental ability, age and the specificity of stated personal goals of the student.

Hypothesis two was accepted provisional to the validity of the measure of utility by the PPUI and the broad definition of retention used to define the students included in this analysis. The narrowly conceived definition of program utility and the evidence that economic utility was also operating among students affected the logic of this hypothesis. Another problem in testing this hypothesis was the high dropout rate which, on the 135th, or last day of the study, was sixty-seven per cent. This left only sixty-six students (8 males, 58 females) on which to test the hypothesis, an insufficient number to meet the requirements of the statistical model. Therefore in order to do the analysis, retention was redefined so as to include all students having a pre- and post-score which included some students who in reality were early dropouts. Using this procedure 107 students were included in the analysis, 19 males and 87 females.

Utilizing sex, esteem, and utility as the independent variables, each of these variables was tested for independent as well as interactive relationships with growth scores. The only significant association ($P = .02$) within this analysis was the association between utility and cognitive growth, i.e., students who perceived the program as having little relationship to their personal goals and higher cognitive growth than students who viewed the program as being highly useful. However this association lost significance ($P = .09$) when the effects of general mental ability, years of schooling and age were equated in the analysis of covariance. This

finding indicated that the group which assessed the program as lacking utility included a disproportionate number of younger more able students and that the higher achievement of this group was a function of being younger and more able.

Esteem was positively but not significantly associated with achievement. This association approached significance (.08 level of probability) when the effects of age were equalized.

It was found that although pre-, post-scores, and raw gain scores were higher for women than for men, that within the sex-esteem-utility interaction moderate esteem males either in the low utility or moderate utility group and high esteem-high utility males were among the students who had the highest raw gain scores.[1] These interaction effects are shown in Figure 3.

Men who scored highest on the SEI and who persisted for a short time showed strikingly high raw gain scores. Only among high esteem males was the rating on program utility positively associated with raw gain scores. It was concluded that there was a trend in the data which indicated that moderate and high esteem men, who rated the program positively, if retained had the greatest potential for cognitive growth.

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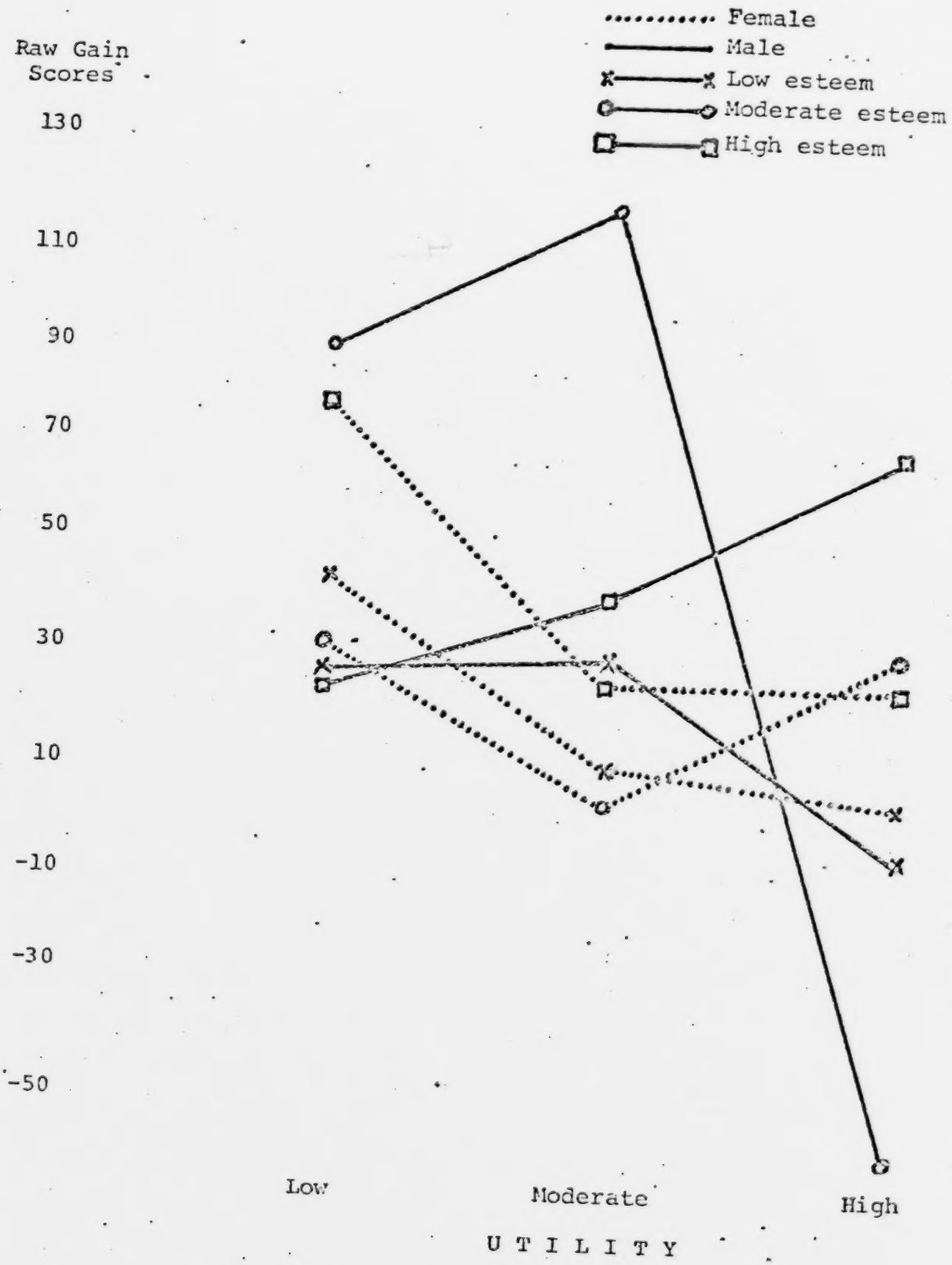
[1]All analyses were done with raw gain scores as well as growth scores. Raw gain scores are used in Figure 3 because growth scores are by definition an artifact of the analysis of covariance and have no estimated mean scores as such.

FIGURE 3

CONTRASTS WITHIN THE SEX-ESTEEM-UTILITY INTERACTION ON RAW GAIN SCORES WITH SIX COVARIATES REMOVED



*The moderate esteem-high utility category for males contained only one case.

It was also apparent in a supplementary analysis that men differed from women in another circumstance related to achievement. Men who dropped out no later than 20 school days after enrolling were characterized by high entry reading scores while the opposite was true for women. Men who were retained for at least six months were characterized by low entry reading scores with the opposite again true for women.

Other Findings

Economic Support Level

Within the analysis the economic support[1] which the student receives to attend school was found to be a significant influence on the retention and attendance of students. When the level of exonomic support was entered as a covariate the sex-esteem-utility interaction on retention was strengthened ($P = .06$). This economic utility was not measured by the PPUI and it appears that the narrow conceptualization of utility which was academic and vocational did not encompass the immediate economic utility which the program represents for some students. It is clear, however, that the level of economic support does not fully account for the high moderate persistence of women in the groups rating the program as having low utility nor does it fully account for the fact that men with high levels of esteem drop out of the program even when they rate

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[1] Economic support level was measured on an ordinal scale of 1 (no support) to 12 (receiving carfare, lunch money, baby-sitting allowance, and a thirty dollar monthly stipend).

the program as being very useful in helping them attain their academic-vocational goals. Even when the level of economic support was equalized there was evidence that the above two groups were being influenced by other variables not measured in this study.

Intelligence, Age, Years of Schooling

Three personal characteristics also significantly affected the hypothesized relationships. The ability of the student was influential in both explaining retention and cognitive growth. Students who were more able had significantly higher self-esteem, lower assessments of the utility of the program, and higher post scores than students who were less able. The age of the student as well as the prior number of years of schooling was highly influential in explaining higher growth scores. Students who were older and students who had more years of schooling tended to have higher levels of self-esteem and lower assessments of program utility than students who did not have these characteristics. These three personal characteristics were influential enough in the analysis to bring the association of sex-esteem-utility with retention to a significant level (see Figure 2). Further, the significant association of cognitive growth with the level of assessed program utility found in the MANOVA was not expressed when ability, age and years of schooling were controlled.

Center Differences

Four separate adult centers within the same Public School system were included in the analysis to account for

differences which might occur because of program specifics and locations rather than because of the personal attributes of the student.

Wide and significant variations in retention and attendance were found among the four centers. Two centers were characterized as having students who were retained at a significantly higher rate than students at the other two centers. Three of the four centers differed significantly from each other in the actual mean days of attendance which characterized their students although attendance was defined differently. No significant differences in this population were found among students' growth scores relative to the center in which they were enrolled.

WIN Enrollment

Students were categorized as to whether they were enrolled in the Work Incentive Program[1] or not since enrollment in WIN signified a higher degree of counseling and a slightly higher economic support level available to the student.

No significant differences were found between WIN enrollees and non-enrollees in retention, attendance, or in cognitive achievement. However, when one equalized the level of economic support within the analysis, WIN enrollees were retained at a significantly lower rate and had significantly poorer attendance than non-enrollees. No differences were

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[1] The WIN program is an intensive support program operated by the Department of Labor to assist employable persons receiving public assistance to gain the training they need to qualify for employment.

found in cognitive achievement between these two groups.

Interpretation of the Findings

The findings did not clearly support the hypotheses. The reasons for this appear to center on an inadequate conceptualization of program utility and the fact that certain program and personal characteristics interact highly with the levels of self-esteem and perceived program utility.

Program utility in this study was conceived as being academic-vocational and an assumption was made that since ABE students in this population give highly vocational reasons for enrolling in ABE when interviewed, the students would rate the program's usefulness based on this type of utility and behave accordingly dependent on their level of self-esteem. What this study indicates is that the students in this population enroll in an ABE program for several reasons. One reason supported by the findings in this study is immediate financial gain. In this study this behavior characterized men and students enrolled in WIN.

Although the level of economic support, intelligence, age and years of schooling which characterized the student were found to have important effects on retention and cognitive growth, none of these variables can explain the apparently absurd finding that in this population (1) women who have high self-esteem and see little usefulness in the program persist and are characterized by high cognitive growth, and (2) men who have high self-esteem and allegedly espouse a high rating of the academic vocational utility of the program are among

the lowest persisters but also among the highest achievers in terms of improving their scores on reading tests in a patently short time period. No variables measured in this study account for these findings.

Some tentative suggestions for explaining this behavior can be made. The retention of women may be related to some type of program utility other than the academic-vocational utility measured. Clearly society does not place pressure on women, especially those with young children, to become economically independent as it does for men. This societal expectation would allow women to attend an ABE program without the pressure of finding a job, if the women found some other utility in enrolling and attending. One such utility might be a social utility which would allow women to get away from the house, and their continual responsibility for their children, and to mingle with other adults. As long as these benefits were high enough, what the women thought about the academic quality of the program would not influence their attendance. It might be further noted that this behavior might be thought to be more legitimate for women with higher self-esteem scores than for women who hold themselves in less esteem. That is to say, women with high self-esteem might dismiss the intended objectives of the program more easily than women with low self-esteem.

Whatever reason holds these high esteem women in the program, their achievement and cognitive gain in reading is among the highest of all sex-esteem-utility subgroups (Figure 3). It may be that these women are freer to

participate and to learn since there is no strong vocational motivation to achieve and therefore less frustration with the program weaknesses. Except for high esteem males, all other students who perceive the program as having high academic vocational utility had lower cognitive growth (Figure 3). This finding may demonstrate that highly motivated students, after three to four months in the program, become frustrated with the incongruency of their high expectations and what the program can reasonably offer. That is to say, the higher expectations one has for what the program might do for him may lead to a lower gain score in the long run because of the development of this sense of frustration, i.e., a type of disenchantment occurs.

The finding that high esteem males who drop out despite an allegedly high opinion of the usefulness of the program is difficult to explain. These students are high achievers even though their retention in the program is short (Figure 3). It was found that of the six men who comprised this group, five had expected to stay in the program for only three months. It may be that high esteem black males who have unrealistic expectations of the length of time they might reasonably expect to be in the program either drop out when the time they have specified has been reached regardless of their goals or, upon reappraisal of the time necessary to reach their goals, decide on some alternative to ABE.

Renbarger[1] found that dropping out was negatively, but not significantly, associated with self-esteem in a population

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[1] Renbarger, op. cit.

of 72 black females. His findings are supported by the results of this study. Renbarger also reported that dropouts had significantly lower language achievement scores than persisters. Since his population was limited to females the findings of this study are consistent with his conclusions. However the results of this study indicate that the level of self-esteem in males has a significant negative linear relationship with retention of these students. Men with high self-esteem drop out and the highest persisters are low esteem males. Perceived academic vocational program utility has a more influential effect on the retention of black males than the level of esteem and this is particularly true of men with low and moderate levels of esteem.

It would appear that ABE programs as now constituted will not retain the more capable black male students. The findings of Mezirow[1] and the Xerox team[2] who reported that the conventionality of the program and the bureaucratic red tape which characterize many ABE programs mitigate against the retention of students, were consistent with the behavior by men in this study. The men who were among the earliest dropouts were the more able and had the highest reading attainment on entry. The less able men who entered with low reading scores saw higher utility in the program and tended to persist longer.

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[1] Mezirow, op. cit.

[2] Xerox Corporation, op. cit.

It is concluded from these data that the retention and attendance rates quoted in the literature by Jahns[1] and Greenleigh[2] are either inflated or are characteristic of a different population from that represented in this study. The retention rate over a six to seven month period was 33 per cent while the attendance figures, known to be exaggerated in this study, show that no student attended more than 108 days and only five per cent of the sample attended over 90 days (base, 107 to 135 days' membership). Mezirow's observations regarding the "creaming operation" of many ABE programs is supported in this population. Clearly, the reasons that ABE students have poor retention and attendance rates are not only a function of the survival nature of their lives but also of problems related to the program. Poor referrals, bureaucratic red tape, and lack of counseling were evident as reasons why some students either dropped out voluntarily or felt they were forced to drop out.

The findings of this study support the fact that esteem is positively associated with cognitive achievement but this association did not reach an acceptable level of significance. Whether esteem is significantly associated with cognitive

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[1] Irwin B. Jahns, "Adult Basic Education Research" in Adult Basic Education: The State of the Art, ed. by William S. Griffith and Ann P. Hayes (Washington, D.C.: Government Printing Office, 1970), pp. 212-13.

[2] Greenleigh Associates, Inc., Educational Rehabilitation: An Evaluation of the Adult Basic Education Program of the State of Illinois (New York: Greenleigh and Associates, Inc., 1965).

achievement among those students assessing a program as having a high academic vocational utility is not known because of the ambiguities surrounding the testing of hypothesis two. There are trends in the data which indicate that utility may be significantly and positively associated with cognitive achievement for male students who have high esteem but this association may not be true for females or low esteem males.

The data on cognitive achievement indicate that there are many problems in the testing procedure which may be dysfunctional to motivating the student to apply himself to achieving and to doing well on the test. The data indicate that, on the average in this sample, ABE students had not completed the eighth grade and in this sample over one-fourth of the students had completed high school, yet the mean reading level was just above the fifth grade level.

In testing the hypotheses on retention, another variable which was influential was the ability of the student to specify his personal goals. The findings of this study indicate that this variable can be measured fairly easily and that it is positively correlated with a higher PPUI score. When only those data from centers in which almost all students were interviewed were analyzed, the perceived utility of the program and the specificity with which the students could articulate their academic vocational goals were significantly associated with retention (F value 6.7 significant $\leq .01$).

The interview data gave evidence that many students had unrealistic goals and knew little about what was required to achieve these goals or whom to seek out to become informed regarding their aspirations. It is therefore concluded that one way to increase the efficiency and effectiveness of existing programs is to strengthen the referral, counseling, and articulation functions of the existing systems. These data support the observations of Griffith et al.[1] on the need for cooperative improvement of ABE programs in multiagency programs.

Implications

Implications will be discussed in terms of methodology, practice, and theory.

Some Implications for Methodology

In this section those things learned about the measurement of variables and designing a study with an ABE population will be discussed.

Self-Esteem

The findings on the normal distribution of self-esteem in this population support the findings of Renbarger[2] and Johnson.[3] It can be concluded that there are wide variations

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[1] Griffith, et al., op. cit.

[2] Renbarger, op. cit.

[3] Robert Johnson, "A Study of Self-Esteem and Related Background Factors of New Reformatory Inmates." (Unpublished Ph.D. dissertation, Michigan State University, 1968).

of self-esteem among ABE students and assuming low self-esteem in this population may be more of a function of value differences between ABE personnel and their students than actual low self-esteem, so often ascribed generally to ABE students.

Teachers of ABE students within the pilot study were found to associate self-esteem level with a set of preferred values, that is to say, that students who conformed to a set of middle class values (sociable, dependable, and valuing a work-education ethic) were considered to have high self-esteem. Although these values were sometimes congruent with high self-esteem in this population, this was not always so and the student who had a strongly defined identity associated with his blackness, tended to be more aloof, and was more cynical regarding the virtues of hard work or the values of an education, was in specific cases misjudged by his teachers on his high level of self-esteem, as measured by the SEI.

The development of the SEI based on the formulations of Coopersmith was accomplished with reasonable estimates of reliability and validity given the constraints of designing a short, verbally administered test. The alleged value of this instrument is that the conceptual base is wider than Coopersmith's own instrument and that it was developed with items relevant to the undereducated working class adult rather than with children or a middle class adult population. However it remains to be seen whether the SEI has higher predictive validity in this population than the instruments utilized by other investigators in ABE.

Perceived Program Utility

The measurement of program utility presents a number of problems. It can not be assumed that the motivation for attending an ABE program is to gain academic skills preparatory to vocational training. However, since this academic vocational objective is the intent of the legislation and, in this study the primary reason for enrolling according to the student, it seems apparent that other motives might be somewhat harder to assess. The economic and the social utility of the program are two motivations which can be assumed from this study and both of these are sensitive areas in which to obtain information.

Since some students either had or were given unrealistic expectations of what they might be able to accomplish in the program, the interpretation of the dropping out among students who gave a high rating to the usefulness of the program was in terms of a disenchantment factor. If in truth disenchantment is a major problem relative to retention, then the timing of the interviews becomes an important source of variation in the data. It would seem therefore that ratings of program utility must be made for at least part of the sample at a later as well as an earlier time after their enrollment.

Whatever the extent and complexity of the problem the variable, perceived program utility, is conceptually robust and holds much promise, not only in understanding the persistence and achievement behavior of students, but also in

redesigning program components to build on these motivations. It is clear, however, that the reformulation of the PPUI is necessary to more adequately measure these dimensions.

Persistence

The measurement of persistence, which appears so simple, proved to be very complex. It is clear that the concept that students either are retained or drop out is simplistic. In this study the stop-out[1] or transient student made up seven per cent of the sample. For some adult students either personal or external factors required the student to stop-out.

On the other hand, dropping out may mean a number of things: It may mean being put out. It may mean that a student's personal goals were accomplished and he finished. It may mean that he wanted to persist but was frustrated by bureaucratic red-tape or a change in policies governing his economic support arrangements.

The problem in measuring persistence relates to this imprecise definition of dropping out. The findings of this study indicate that because of institutional policies, the same student could have been defined as a drop out, a stop-out, or a potential persister.

Further, depending on given social policies at any one time the occurrence of dropping out varies. Illustrative of this fact is that a man in perfect attendance who was found

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[1] A stop-out is defined as a person who may leave school for a period of time only to re-enroll at a later time.

engaged in self-study at home, dropped out because carfare and lunch money were stopped as a policy of the agency that referred him. In another case, because of the lack of personnel, a student seemingly highly motivated to attend was told to stay home until her rent check caught up with her new address. She was put out of her apartment due to her late rent check and was away five months before getting the problem settled.

Another variation in the data occurs because of the variability in the general social conditions at any one point of time. For example when unemployment was high, as it was during this study, the pool of students wanting to enroll was high. When there are people waiting to enroll, the effort of personnel to retain the student already enrolled is visibly less pronounced.

All these variations cause difficulties in measuring persistence. The variable, persistence patterns, appears to be a more useful way to conceive of retention. As utilized in this study, however, the measure was not definitive since it was constructed after the data were collected and tended to measure more adequately why students dropped out than why students stayed in.

Attendance

The problem regarding the measurement of attendance is as thorny an issue as the measurement of persistence. First of all, attendance is contingent on being retained. Therefore,

strict policies on attendance as prerequisite to active enrollment causes differing attendance data depending on the definition of retention. Secondly, the policy of defining attendance was found in the same system to vary widely among administrative units within the system. In some centers attendance meant only that at some point in the day a student had been in school. In other centers attendance was more strictly enforced and excessive tardiness, class cutting, or leaving early meant potential termination.

Another aspect of attendance which was not adequately measured in this study was regularity of attendance. The attendance patterns indicate that some students for the period they persisted had high regular attendance. In other cases, students who persisted the entire time of the study did not have one month in which attendance was regular. It could be observed that attendance for some students was a function of attending minimally in order not to jeopardize their active enrollment. Accordingly these problems in the measurement of retention and attendance must be adequately considered prior to generalizing across or within ABE programs.

Cognitive gain

The validity of the measurement of cognitive gain through the use of standardized reading tests is a widely discussed problem but one which has special features when used in an ABE program. The selection of a standardized test presents the first problem since few tests have been designed

especially for adults and therefore present difficulties to investigators in wishing to utilize them for research purposes.

In this study the administering of entry and subsequent reading tests varied with administrative policy. In some cases students were not tested until after a two-week orientation period and by this time some students had dropped out. There were cases in which an inappropriate level of test was given and the student's score then was in a less valid range of scores but was the only available score to be utilized. In still other cases the policies on retesting were so different that some students had several subsequent test scores while another student persisting the same length of time had one or more depending on whether they were present on the day schoolwide testing occurred.

When one begins to utilize the scores, comparability is not only impaired by the variations within the testing situation but also there is a lack of comparability between levels of tests. In the case of the SAT, research on the original testing population had been done and equated scores were available for the paragraph meaning section of the test. However, other tests may not have these equated scores which were available on the SAT used by this researcher.

Another problem relative to measuring growth is the appropriate statistical analysis to use. There is still little agreement among researchers as to whether it is appropriate to utilize simple gain scores or to take account of the size of the pre-score in measuring the size of the difference

between pre- and post-score. Other ways of measuring cognitive growth have been suggested all of which manipulate the raw scores. In this study when raw gain scores were used the association between the level of utility and cognitive gain was significant, but this was not the case when the size of the pre-score was accounted for statistically to develop a growth score.

If one uses an analysis which utilizes post-score conditional to pre-score then a limitation of this method is that there are no observed or estimated mean scores with which to do Sheffé tests or to study interactional patterns.

It is concluded that the problems associated with measuring cognitive gain are great, and until these problems can be solved it becomes important to state the conditions of the data collection process and analysis precisely so that the limitations and conditions for replicating the study are clear.

Implications for Practice

Persistence

It seems obvious from this study that the careful referral, counseling and educating of the adult student to his academic vocational options may be as important as actually teaching the student reading, writing and arithmetic. If there is a lack of well-informed skilled personnel in supportive agencies, then it would appear imperative for the educators to assume more responsibilities for these functions.

However, the students must be able to articulate and specify their personal goals. The first problem seems to be informational. What are the possible goals for achieving economic independence, or, if this is not possible, what are the goals for increasing the quality of life for the student and his dependents? Implicit in these statements is the assumption that an ABE program has this priority of responsibilities to the student and to the legislative intent of the program funding. The second problem appears to be to help the student be realistic about his goals based on data rather than assumptions of personnel regarding what is possible for the student. The third problem is to help each student articulate a specific plan to follow in pursuing his goals and to build in evaluative procedures so that he can assess his progress.

On the basis of this study it is concluded that this process of specifying goals, formulating specific plans for implementing these goals, and assisting the student in evaluating his progress is done too late, if at all, with the individual student. A number of agency personnel are either unclear about or refuse to accept the fact that employability is a major priority of ABE and money of its students.

Students who consider themselves "serious" students will probably have no trouble meeting the expectations of regular attendance, meeting class schedules, and generally performance in terms of usual institutional expectations. However, students who apparently approach the educational program more

casually and perhaps have already indicated a low tolerance of a regular schedule by dropping out of school as youths will have to be socialized into an alternate pattern of behavior if they expect to obtain employment.

It is apparent that if the ABE program is not designed to socialize as well as to educate the student it will be able to educate only a small portion of the clientele it was designed to serve. The problem here is how to design a program which allows more flexibility for newly enrolled students and subsequently increases the expectations of the institution so that transfer to the work situation is eased.

Implications for Theory

The rationale of the study which posits specific behaviors as a result of the interaction of the student's level of self-esteem and perceived program utility has not as yet been fully tested. What this study has shown is that there are more complex explanations for a wider range of behaviors. As has been pointed out previously the conceptualization of perceived program utility must be viewed from the aspect of the motivations of the student to attend. The findings of the study indicate that the range of reasons for a poor undereducated adult to attend an adult education program is potentially as wide as the findings in the literature that relate to economically independent, better educated adults.

It is also clear from this study that certain personal and program characteristics have strong effects on the interaction of the level of self-esteem and the perceived utility of the program. Although the findings of this study cannot support categorical statements about how the personal and program characteristics interact to effect differing persistence and achievement behaviors, some insights into the nature of these interactions were developed.

The findings appear to support the idea that persons with higher levels of self-esteem have more alternative behaviors open to them but that the scope of those behaviors is defined for them in terms of the values and norms of the larger society. Accordingly, the same level of self-esteem predicts differential behaviors for men and women who have high levels of self-esteem.

At this time the rationale could be amended to reflect the following complexities.

A student may be motivated to enroll in an ABE program to reach diversified goals. These goals may be academic-vocational, short term economic, social or general coping skills which might improve the quality of personal or family life. It can be assumed that these goals predict the nature of the program utility which the student looks for in the program. To the extent that the student has delineated these goals and assesses the program as having that utility needed in reaching his goals and continues to see that utility, he will be

retained regardless of his level of self-esteem.

An academic-vocational goal is no doubt a predominant goal for students who are younger regardless of sex. However the academic vocational utility of the program is a more compelling factor for males than for females in predicting retention and possibly achievement. The social or coping skill utility is probably a much higher predictor for women than for men.

Economic utility in a program without stipends is probably a utility which operates relative to a number of external factors such as employment and is probably a much more important variable in a program with stipends. If unemployment is high the economic utility of an ABE program is probably enhanced. The economic utility of an ABE program without stipends is at best a predictor of moderate (less than 6 months) retention of males; however, if a male finds and sustains a high academic-vocational assessment of program utility, the economic utility of the program may be the difference between his staying in or dropping out. The function of economic versus academic-vocational utility, as well as other utilities, may also be different for differing populations since the legitimacy of various program utilities appears to be conditional to the value orientation of the referant group to which the student belongs.

Given this more complete conceptualization of program utility, self-esteem level can be expected to operate under

the original rationale of this study. However the interaction of self-esteem with general mental ability and years of schooling are confounding effects. That is to say that cognitive growth is predicted by the level of esteem but the level of esteem in this population is highly correlated with general mental ability and with years of schooling. It is not known whether the level of self-esteem is an antecedent or a consequent in this relationship.

The practical question of how to increase the cognitive achievement of ABE students can only be answered by another type of study which attempts to increase self-esteem among ABE students and to study the changes which might occur relative to general mental ability and years of schooling as these variables might change the rate of cognitive growth. The salient questions are: (1) Given some method of raising self-esteem, does an increase in self-esteem (a) increase the ability of a student to score well on an intelligence test and (b) increase the rate of cognitive growth regardless of changes related to general mental ability? (2) Can one predict the rate of change in self-esteem in terms of variations of scores on intelligence tests or the number of years of previous schooling.

Suggestions for Further Research

The hypothesized relationships between the level of self-esteem and perceived program utility on persistence and cognitive gain remain yet to be tested adequately. It would

appear that the self-esteem instrument developed for this study is adequate for the measurement of this variable in future studies involving undereducated, economically dependent blacks. The measure of utility (PPUI) suffers from inadequate conceptualization and needs further refinement. In order to test adequately the hypotheses in this study items which measure the economic utility and the social utility of an ABE program would be required.

There was evidence in this population that sex interacts highly with the level of self-esteem especially when self-esteem is high. More needs to be understood about these differences and the differential behaviors that can be expected from men as contrasted with women. Accordingly more research is necessary which compares all male or all female programs to mixed programs. It is suspected that males with high self-esteem might react differentially in terms of sex ratios and possibly to curricula which included realistic vocational components.

Trends in the data of this study indicate that men with high self-esteem had low expectations of the time it would take them to complete their goals in the remedial process. More needs to be known regarding the effects of students' time expectations and what their participation in the program might accomplish and how those expectations relate to dropping out or disenchantment with the program if a student persists.

Differential cognitive achievement patterns appear to have complex explanations. The role of intelligence, years of schooling, age, level of esteem, and expressed utility for a program all seem to be related to motivation to achieve. A more detailed study of these effects is needed in order to find ways to increase cognitive achievement gains for all students.

The effects of differing administrative styles within the operational units in interaction with students' life styles and personality structures also emerged from this study as being a profitable area for future research. In fact, very little is known about this whole area of the interaction of program characteristics with personality characteristics. The value of attempting to match the program to the student, rather than relying on geographical proximity, might be a highly practical policy given the realities of high student needs in a remedial program and the professional personnel needed to staff these programs.

The significant effects of the level of economic support on retention were demonstrated in this study which was characterized by minimal support levels. Economic support level was not a significant factor relative to cognitive growth. Further study of the effects of economic support on retention among programs with substantial stipends, minimal support, and no support is needed. Any variations in these effects among different ABE student populations would also be useful. It would be good to know how retention, in cases of high economic

support, affects cognitive growth. In other words, to what degree does the level of economic support become a primary motivation to attend a program and under what circumstances, if any, does the student resist the educational areas of the program?

Finally, experimental research which attempts to alter the mix of salient variables, in order to increase the probability of student retention and achievement, is needed once it is known how these variables singly influence student behaviors.

Limitations of the Study

The findings of this study are subject to two kinds of limitations, limitations due to measurement and design, as well as limitations peculiar to the implementation of the study.

The severest limitation on the study is the inadequate conceptualization of program utility. The assumption that the academic-vocational utility of a program was the only utility which motivated black urban poor students in persisting and achieving in an ABE program severely limited the testing of the hypotheses. Along with this methodological problem, the insufficient sample size, along with the low number of males, prevented the adequate testing of hypothesis two and places severe limitations on the generalizability of sex differences found in the sex-esteem-utility interaction in testing hypothesis one.

In carrying out the study, the fact that 21 students from one center were not available for interview was found to have weakened the relationships of program utility and retention and may have exaggerated the findings that high esteem females are retained despite utility assessments of the program.

External effects, such as changes in agency policies and conditions of employment, were potential sources of variation. These external effects may have had effects on teachers, dropouts, and persisters but no data were collected to assess the influence of this threat.

The limitations caused by imprecise measurement of cognitive gain are no more than what is found in any study of this sort, but these limitations may be increased because of the variations in testing conditions and the frequency with which tests were administered in some centers.

All these variations within the environment, the institution and the measurement of variables are potential sources of variation within the data analysis.

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